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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,841	07/31/2003	Masato Ueno	01-453	1969
23400	7590	02/23/2004	EXAMINER	
POSZ & BETHARDS, PLC 11250 ROGER BACON DRIVE SUITE 10 RESTON, VA 20190			COTTINGHAM, JOHN R	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/630,841	<b>Applicant(s)</b> UENO ET AL.	
	<b>Examiner</b> John R. Cottingham	<b>Art Unit</b> 3679	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
       Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
       Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☒ All    b) ☐ Some \*    c) ☐ None of:
    - 1. ☒ Certified copies of the priority documents have been received.
    - 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/31/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1- are rejected under 35 U.S.C. 102(b) as being anticipated by Owens et al. U.S. Patent 6,059,483. Owens teaches all of the claimed subject matter of a bonding structure in Figures 1-7.

Regarding claim 1, a bonding structure to bond a first body 22 and a second body 24 air-tightly, comprising: a convexity which is formed circumferentially one of the first body and the second body; and a concavity which is formed in another of the first body and the second body 24 to engage with the convexity, wherein the convexity and the concavity form a gap between a peripheral surface of the convexity and a peripheral surface of the concavity; and adhesive material 26 filled in the gap to bond the convexity and the concavity, wherein a peripheral surface of the gap has a protrusion (bump on the side) protruding in a radial direction.

Regarding claim 2, wherein the convexity partitions (vertical walls) the concavity into the inner-gap, which is defined by an inner peripheral surface of the convexity and an opposing peripheral surface of the concavity, and the outer-gap, which is defined by an outer peripheral surface of the convexity and an opposing peripheral surface of the

concavity, and one of the inner-gap and the outer-gap has the protrusion 22 on at least one peripheral surface of the concavity and the convexity.

Regarding claim 3, wherein only the inner peripheral surface of the convexity and the opposing peripheral surface of the concavity has the protrusion, respectively. (see Fig. 2)

Regarding claim 4, wherein only the outer peripheral surface of the convexity and the opposing peripheral surface of the concavity have the protrusions, respectively. (see Fig. 3)

Regarding claim 5, wherein the protrusion is formed to extend in a direction in which the first body engages with the second body.

Regarding claim 6, wherein the protrusion are formed to extend perpendicularly to a direction in which the first body engages with the second body.

Regarding claim 7, wherein the protrusion is formed on an entire peripheral surface of the convexity. (See Fig. 4)

Regarding claim 8, wherein the protrusion is formed on an entire peripheral surface of the concavity.

Regarding claim 10, first body and the second body have different linear wherein the coefficients of expansion from each other. (Different materials.)

***Allowable Subject Matter***

3. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


**Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Meeker U.S. Patent 4,554,196 and Adam et al. U.S. Patent 4,643,040 show similar inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Cottingham whose telephone number is (703) 306-3439. The examiner can normally be reached on Monday - Thursday, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703) 308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John R. Cottingham  
Primary Examiner  
Art Unit 3679

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